

=> b hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

7.05

66.08

FILE 'HCAPLUS' ENTERED AT 10:01:20 ON 02 FEB 2004

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FILE COVERS 1907 - 2 Feb 2004 VOL 140 ISS 6

FILE LAST UPDATED: 1 Feb 2004 (20040201/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que 113

L11	588	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	JELLYFISH?/OBI OR STOMOLOPHUS/OBI
L12	63280	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	COLLAGEN?/OBI OR PROCOLLAGEN?/OBI
L13	27	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L11 AND L12

=> d que 114

L11	588	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	JELLYFISH?/OBI OR STOMOLOPHUS/OBI
L12	63280	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	COLLAGEN?/OBI OR PROCOLLAGEN?/OBI
L13	27	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L11 AND L12
L14	0	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ARTHRIT?/OBI AND L13

=> d que 115

L11	588	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	JELLYFISH?/OBI OR STOMOLOPHUS/OBI
L12	63280	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	COLLAGEN?/OBI OR PROCOLLAGEN?/OBI
L13	27	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L11 AND L12
L15	2	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	IMMUN?/OBI AND L13

=> b medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.72	70.80

FILE 'MEDLINE' ENTERED AT 10:02:34 ON 02 FEB 2004

FILE LAST UPDATED: 31 JAN 2004 (20040131/UP). FILE COVERS 1958 TO DATE.

On December 14, 2003, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and http://www.nih.gov/pubs/ychbull/nd03/nd03_mesh.html for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 118

L16	655	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	JELLYFISH? OR STOMOLOPHUS
L17	111029	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	COLLAGEN? OR PROCOLLAGEN?
L18	12	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L16 AND L17

=> d que 119

L16	655	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	JELLYFISH? OR STOMOLOPHUS
L17	111029	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	COLLAGEN? OR PROCOLLAGEN?
L18	12	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L16 AND L17
L19	0	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ARTHRIT? AND L18

=> d que 120

L16	655	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	JELLYFISH? OR STOMOLOPHUS
L17	111029	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	COLLAGEN? OR PROCOLLAGEN?
L18	12	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L16 AND L17
L20	1	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	IMMUN? AND L18

=> b biosis

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.38	71.18

FILE 'BIOSIS' ENTERED AT 10:03:06 ON 02 FEB 2004
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FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 28 January 2004 (20040128/ED)

FILE RELOADED: 19 October 2003.

=> d que 123

L21	1279	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	JELLYFISH? OR STOMOLOPHUS
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L22 112175 SEA FILE=BIOSIS ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L23 22 SEA FILE=BIOSIS ABB=ON PLU=ON L21 AND L22

=> d que 124

L21 1279 SEA FILE=BIOSIS ABB=ON PLU=ON JELLYFISH? OR STOMOLOPHUS
 L22 112175 SEA FILE=BIOSIS ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L23 22 SEA FILE=BIOSIS ABB=ON PLU=ON L21 AND L22
 L24 1 SEA FILE=BIOSIS ABB=ON PLU=ON ARTHRIT? AND L23

=> d que 125

L21 1279 SEA FILE=BIOSIS ABB=ON PLU=ON JELLYFISH? OR STOMOLOPHUS
 L22 112175 SEA FILE=BIOSIS ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L23 22 SEA FILE=BIOSIS ABB=ON PLU=ON L21 AND L22
 L25 2 SEA FILE=BIOSIS ABB=ON PLU=ON IMMUN? AND L23

=> b ocean

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.85	72.03

FILE 'OCEAN' ENTERED AT 10:03:26 ON 02 FEB 2004
 COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE COVERS 1964 TO 16 JAN. 2004 (20040116/ED)

=> d que 128

L26 395 SEA FILE=OCEAN ABB=ON PLU=ON JELLYFISH? OR STOMOLOPHUS
 L27 340 SEA FILE=OCEAN ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L28 6 SEA FILE=OCEAN ABB=ON PLU=ON L26 AND L27

=> d que 129

L26 395 SEA FILE=OCEAN ABB=ON PLU=ON JELLYFISH? OR STOMOLOPHUS
 L27 340 SEA FILE=OCEAN ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L28 6 SEA FILE=OCEAN ABB=ON PLU=ON L26 AND L27
 L29 0 SEA FILE=OCEAN ABB=ON PLU=ON ARTHRIT? AND L28

=> d que 130

L26 395 SEA FILE=OCEAN ABB=ON PLU=ON JELLYFISH? OR STOMOLOPHUS
 L27 340 SEA FILE=OCEAN ABB=ON PLU=ON COLLAGEN? OR PROCOLLAGEN?
 L28 6 SEA FILE=OCEAN ABB=ON PLU=ON L26 AND L27
 L30 1 SEA FILE=OCEAN ABB=ON PLU=ON IMMUN? AND L28

=> dup rem 118 123 128 113

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.20	74.23

FILE 'MEDLINE' ENTERED AT 10:04:24 ON 02 FEB 2004

FILE 'BIOSIS' ENTERED AT 10:04:24 ON 02 FEB 2004

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FILE 'OCEAN' ENTERED AT 10:04:24 ON 02 FEB 2004

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FILE 'HCAPLUS' ENTERED AT 10:04:24 ON 02 FEB 2004

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PROCESSING COMPLETED FOR L18

PROCESSING COMPLETED FOR L23

PROCESSING COMPLETED FOR L28

PROCESSING COMPLETED FOR L13

L32 41 DUP REM L18 L23 L28 L13 (26 DUPLICATES REMOVED)

=> d ibib abs hitind l32 1-41

L32 ANSWER 1 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:3559 HCAPLUS

DOCUMENT NUMBER: 140:65080

TITLE: Support with **collagen** base for tissue engineering and manufacture of biomaterials

INVENTOR(S): Andre, Valerie; Abdul, Malak Nabil; Huc, Alain

PATENT ASSIGNEE(S): Coletica, Fr.

SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 616,282.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004002055	A1	20040101	US 2003-364223	20030210
FR 2809412	A1	20011130	FR 2000-6748	20000526
US 6541023	B1	20030401	US 2000-616282	20000714
WO 2001091821	A1	20011206	WO 2001-FR1631	20010525
W: DE, JP, KR, US				
DE 10196234	T	20030417	DE 2001-10196234	20010525
JP 2003534102	T2	20031118	JP 2001-587833	20010525
FR 2809314	A1	20011130	FR 2001-6919	20010528
PRIORITY APPLN. INFO.:			FR 2000-6743	A 20000526
			FR 2000-6748	A 20000526
			US 2000-616282	A2 20000714
			US 2000-616526	A2 20000714

AB The invention relates to a method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin, comprising a composite product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane component selected from the group consisting of a collagen membrane prepared by compression of a collagen sponge at a pressure of at least about 50 bar and of a collagen membrane comprising a collagen film prepared by drying a collagen gel sep. from the porous collagen layer, thereby providing a reliable method for finding new potentially active substances.

IC ICM C12Q001-00
NCL 435004000
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 1, 2, 15
ST **collagen** support artificial skin tissue engineering
IT Skin
(Langerhans' cell; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Skin
(Merkel cell; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Skin
(artificial; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Fish
(**collagen** gels from skin of; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT **Jellyfish**
(**collagen** gels from; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Membrane, biological
(**collagenous**; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Neoplasm
(cultures of; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Human
(elderly; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Blood vessel
(endothelium; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Animal tissue
(engineering; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Skin
(keratinocyte; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Nerve
(neuron; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Sebaceous gland
(sebocyte; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Medical goods
(sponges, **collagen**; support with **collagen** base for tissue engineering and manufacture of biomaterials)
IT Animal tissue culture
Blood cell
Chondrocyte
Dendritic cell
Drug screening
Drying
Fibroblast
Freeze drying
Melanocyte
Osteoblast

Osteocyte
Transformation, genetic
(support with **collagen** base for tissue engineering and manufacture of biomaterials)

IT **Collagens**, biological studies
RL: BSU (Biological study, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(support with **collagen** base for tissue engineering and manufacture of biomaterials)

IT Glycosaminoglycans, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(support with **collagen** base for tissue engineering and manufacture of biomaterials)

IT Chemokines
Cytokines
Growth factors, animal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(support with **collagen** base for tissue engineering and manufacture of biomaterials)

IT 9000-07-1, Carrageenan 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, biological studies 9005-32-7D, Alginic acid, salts 9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(support with **collagen** base for tissue engineering and manufacture of biomaterials)

L32 ANSWER 2 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:884552 HCAPLUS

DOCUMENT NUMBER: 139:369832

TITLE: A method for obtaining **collagens** from **jellyfish**

INVENTOR(S): Tagawa, Hideo

PATENT ASSIGNEE(S): Ryoyo Sangyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003321497	A2	20031111	JP 2002-160735	20020424
PRIORITY APPLN. INFO.:			JP 2002-160735	20020424
AB This invention relates to an automated system to obtain collagens from jellyfish. The jellyfish collected from underwater are separated using automatic strainer, frozen at -20°, then thawed, and from a solid (.apprx. 4 %), a water-soluble protein is separated to obtain collagens to be used for medical and food products.				
IC ICM C07K014-78				
ICS A23J001-04				
CC 63-8 (Pharmaceuticals)				
Section cross-reference(s): 17				
ST collagen jellyfish freezing thawing				
IT Freezing				

(-thawing; freezing and thawing **jellyfish** for obtaining **collagens**)

IT **Jellyfish**

(freezing and thawing **jellyfish** for obtaining **collagens**)

IT **Collagens**, biological studies

RL: FFD (Food or feed use); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(freezing and thawing **jellyfish** for obtaining **collagens**)

L32 ANSWER 3 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:142747 HCAPLUS

DOCUMENT NUMBER: 138:175496

TITLE: Volume reduction of **jellyfish** with **collagenase**

INVENTOR(S): Ogushi, Yasuyuki; Takeuchi, Yoshiyuki; Kono, Susumu; Nakayama, Hiroyuki; Kawabata, Toyoki; Oka, Yosuke; Yanagawa, Toshiharu; Naganuma, Takeshi; Nagao, Hiroshi
PATENT ASSIGNEE(S): Mitsubishi Heavy Industries, Ltd., Japan; Chugoku Electric Power Co.

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003053303	A2	20030225	JP 2001-211048	20010711
PRIORITY APPLN. INFO.:			JP 2001-121488	A 20010419
			JP 2001-170054	A 20010605

AB The process involves treating **jellyfish** with **collagenase** or bacteria [e.g., *Bacillus* sp. J26W (FERM P-18313)] producing enzymes which degrade collagen fibers constituting the bodies of **jellyfish** and removing water from the bodies for volume reduction. The process is applicable to treatment of seawater containing a large quantity of **jellyfish** or **jellyfish** collected from seawater used for cooling water in power plants, etc.

IC ICM B09B003-00

ICS C12N001-20; C12R001-07; C12R001-63

CC 61-8 (Water)

Section cross-reference(s): 7, 10, 60

ST seawater **jellyfish** vol redn **collagenase** *Bacillus*;
cooling water **jellyfish** vol redn **collagenase**

IT Water purification

(fouling control; volume reduction of **jellyfish** with **collagenase** of *Bacillus* for use of seawater as cooling water)

IT *Aurelia aurita*

Bacillus (bacterium genus)

Cooling water

Jellyfish

Seawater

(volume reduction of **jellyfish** with **collagenase** of *Bacillus* for use of seawater as cooling water)

IT **Collagen** fibers

RL: BCP (Biochemical process); REM (Removal or disposal); BIOL (Biological study); PROC (Process)

(volume reduction of **jellyfish** with **collagenase** of **Bacillus** for use of seawater as cooling water)

IT 9001-12-1P, **Collagenase**

RL: NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)

(volume reduction of **jellyfish** with **collagenase** of **Bacillus** for use of seawater as cooling water)

L32 ANSWER 4 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:23859 HCAPLUS

DOCUMENT NUMBER: 136:90696

TITLE: Method and process for the production of **collagen** preparations from invertebrate marine animals and compositions thereof

INVENTOR(S): Wolfinbarger, Lloyd, Jr.

PATENT ASSIGNEE(S): Bioscience Consultants, L.L.C., USA

SOURCE: U.S., 10 pp., Cont.-in-part of U.S. 5,714,582.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6337389	B1	20020108	US 1997-959272	19971028
US 5714582	A	19980203	US 1995-405979	19950317

PRIORITY APPLN. INFO.: US 1995-405979 A2 19950317

AB The present invention relates to a process for the production of marine invertebrate type V telopeptide-containing collagen preps. from marine invertebrates, such as jellyfish, compns. containing preps., and methods of using these preps. The methods consist of (a) treating the collagen-containing materials with an organic acid, e.g., acetic or citric acid,

(b) precipitating the collagen with a salt solution, (c) removing the salt by washing with water, and (d) resolubilizing the precipitated collagen with an acid. The collagen preparation includes telopeptide-containing and optionally invertebrate

atelopeptide-containing, type V fibrillar collagen. The present collagen preps. may be employed in a variety of products including, e.g., cosmetic, pharmacol., dental, and cell culture products. For example, a hair conditioner composition contains (by weight) 30.0-95% water, 0.5-30.0% conditioning agent, and 0.001-30.0% type V collagen obtained from marine invertebrate.

IC ICM A61K038-17

ICS A61K007-06; C07K001-00

NCL 530356000

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 9, 12, 63

ST **collagen** marine invertebrate cosmetic biomedical

IT **Collagens**, biological studies

RL: BUU (Biological use, unclassified); COS (Cosmetic use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (atelocollagens, type V; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Gelatins, biological studies
RL: BUU (Biological use, unclassified); COS (Cosmetic use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**collagen**-containing; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Hair preparations
(conditioners; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Cosmetics
(creams, moisturizers; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Cosmetics
(makeups; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Cnidaria
(marine; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Cosmetics
(moisturizers, lotions; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT Cosmetics
Freeze drying
Jellyfish
Marine invertebrate
Scyphozoa
Shampoos
(production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT **Collagen** fibers
RL: BUU (Biological use, unclassified); COS (Cosmetic use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT **Collagens**, biological studies
RL: BUU (Biological use, unclassified); COS (Cosmetic use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(type V; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT 7647-14-5, Sodium chloride, uses
RL: NUU (Other use, unclassified); USES (Uses)
(precipitation by; production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- IT 64-19-7, Acetic acid, uses 77-92-9, Citric acid, uses
RL: NUU (Other use, unclassified); USES (Uses)
(production of **collagen** preps. from invertebrate marine animals for biomedical and cosmetic uses)
- REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 5 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:377722 HCAPLUS
DOCUMENT NUMBER: 136:374459

TITLE: System for recovering valuable substances from **jellyfish** in seawater to be used for cooling
 INVENTOR(S): Hamazaki, Akihiro; Nakamura, Hiroshi; Ogawa, Naoki; Yoshimi, Katsuji; Higuchi, Tetsuro; Sagawa, Hiroshi
 PATENT ASSIGNEE(S): Mitsubishi Heavy Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002143824	A2	20020521	JP 2000-347006	20001114

PRIORITY APPLN. INFO.: JP 2000-347006 20001114

AB The system for recovering and utilizing protein components as valuable substances from **jellyfish** by crushing **jellyfish**, dissolving protein components by a dissoln. means, adsorbing the protein components on foams and separating the resulting foams by foaming and separating means. The protein components may be used for producing compost, collagens, or gelatins. **Jellyfish** as a pollutant can be removed from seawater to be used for cooling in a power plant.

IC ICM B09B005-00
 ICS B09B003-00; C02F011-02; C07K001-02; C07K014-435

CC 61-5 (Water)
 Section cross-reference(s): 19

ST **jellyfish** protein valuable substance recovery seawater; cooling seawater compost recovery **jellyfish** removal; gelatin recovery **jellyfish** removal cooling seawater; **collagen** recovery **jellyfish** removal cooling seawater

IT Water purification
 (of **jellyfish**; valuable substance recovery system for recovering compost, **collagen**, or compost from **jellyfish** from cooling seawater)

IT Compost
Jellyfish
 Seawater
 (valuable substance recovery system for recovering compost, **collagen**, or compost from **jellyfish** from cooling seawater)

IT **Collagens**, preparation
 Gelatins, preparation
 RL: BYP (Byproduct); PREP (Preparation)
 (valuable substance recovery system for recovering compost, **collagen**, or compost from **jellyfish** from cooling seawater)

L32 ANSWER 6 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:3544 HCAPLUS

DOCUMENT NUMBER: 139:361801

TITLE: A zebrafish sox9 gene required for cartilage morphogenesis. [Erratum to document cited in CA138:201889]

AUTHOR(S): Yan, Yi-Lin; Miller, Craig T.; Nissen, Robert M.; Singer, Amy; Liu, Dong; Kirn, Anette; Draper, Bruce;

Willoughby, John; Morcos, Paul A.; Amsterdam, Adam; Chung, Bon--hu.; Westerfield, Monte; Haffter, Pascal; Hopkins, Nancy; Kimmel, Charles; Postlethwait, John H.
CORPORATE SOURCE: Institute of Neuroscience, University of Oregon, Eugene, OR, 97403, USA
SOURCE: Development (Cambridge, United Kingdom) (2002), 129(23), 5551
CODEN: DEVPED; ISSN: 0950-1991
PUBLISHER: Company of Biologists Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The name of the third author, Robert M. Nissen, was misspelled.
CC 12-3 (Nonmammalian Biochemistry)
Section cross-reference(s): 3, 6
IT Mutation
(**jellyfish**; zebrafish sox9 gene sequence and role in cartilage morphogenesis (Erratum))
IT **Collagens**, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study) (zebrafish sox9 gene sequence and role in cartilage morphogenesis (Erratum))

L32 ANSWER 7 OF 41 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2002667914 MEDLINE
DOCUMENT NUMBER: 22283643 PubMed ID: 12397114
TITLE: A zebrafish sox9 gene required for cartilage morphogenesis.
COMMENT: Erratum in: Development 2002 Dec;129(23):5551
Erratum in: Nissen Robert [corrected to Nissen Robert M]
AUTHOR: Yan Yi-Lin; Miller Craig T; Nissen Robert M; Singer Amy; Liu Dong; Kirn Anette; Draper Bruce; Willoughby John; Morcos Paul A; Amsterdam Adam; Chung Bon-Chu; Westerfield Monte; Haffter Pascal; Hopkins Nancy; Kimmel Charles; Postlethwait John H; Nissen Robert
CORPORATE SOURCE: Institute of Neuroscience, University of Oregon, Eugene 97403, USA.
CONTRACT NUMBER: P01HD22486 (NICHD)
R01 DC04186 (NIDCD)
R01 RR12589 (NCRR)
R01DE13834 (NIDCR)
R01RR10715 (NCRR)
SOURCE: DEVELOPMENT, (2002 Nov) 129 (21) 5065-79.
Journal code: 8701744. ISSN: 0950-1991.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200212
ENTRY DATE: Entered STN: 20021114
Last Updated on STN: 20021217
Entered Medline: 20021203

AB The molecular genetic mechanisms of cartilage construction are incompletely understood. Zebrafish embryos homozygous for **jellyfish** (jef) mutations show craniofacial defects and lack cartilage elements of the neurocranium, pharyngeal arches, and pectoral girdle similar to humans with campomelic dysplasia. We show that two alleles of jef contain mutations in sox9a, one of two zebrafish orthologs of the human transcription factor SOX9. A mutation induced by ethyl

nitrosourea changed a conserved nucleotide at a splice junction and severely reduced splicing of *sox9a* transcript. A retrovirus insertion into *sox9a* disrupted its DNA-binding domain. Inhibiting splicing of the *sox9a* transcript in wild-type embryos with splice site-directed morpholino antisense oligonucleotides produced a phenotype like *jef* mutant larvae, and caused *sox9a* transcript to accumulate in the nucleus; this accumulation can serve as an assay for the efficacy of a morpholino independent of phenotype. RNase-protection assays showed that in morpholino-injected animals, the percent of splicing inhibition decreased from 80% at 28 hours post fertilization to 45% by 4 days. Homozygous mutant embryos had greatly reduced quantities of *col2a1* message, the major **collagen** of cartilage. Analysis of *dlx2* expression showed that neural crest specification and migration was normal in *jef* (*sox9a*) embryos. Confocal images of living embryos stained with BODIPY-ceramide revealed at single-cell resolution the formation of precartilaginous condensations in mutant embryos. Besides the lack of overt cartilage differentiation, pharyngeal arch condensations in *jef* (*sox9a*) mutants lacked three specific morphogenetic behaviors: the stacking of chondrocytes into orderly arrays, the individuation of pharyngeal cartilage organs and the proper shaping of individual cartilages. Despite the severe reduction of cartilages, analysis of titin expression showed normal muscle patterning in *jef* (*sox9a*) mutants. Likewise, calcein labeling revealed that early bone formation was largely unaffected in *jef* (*sox9a*) mutants. These studies show that *jef* (*sox9a*) is essential for both morphogenesis of condensations and overt cartilage differentiation.

CT Check Tags: Animal; Comparative Study; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Alleles

Base Sequence

Bone Development: GE, genetics

Cartilage: AB, abnormalities

*Cartilage: EM, embryology

Cartilage: GD, growth & development

Chondrogenesis: GE, genetics

Chondrogenesis: PH, physiology

DNA, Complementary: GE, genetics

Disease Models, Animal

Gene Duplication

Gene Expression Regulation, Developmental

*High Mobility Group Proteins: GE, genetics

High Mobility Group Proteins: PH, physiology

Muscles: EM, embryology

Mutation

Oligodeoxyribonucleotides, Antisense: GE, genetics

Oligodeoxyribonucleotides, Antisense: PD, pharmacology

Osteochondrodysplasias: EM, embryology

Osteochondrodysplasias: GE, genetics

Pharynx: EM, embryology

RNA Splicing: DE, drug effects

*Transcription Factors: GE, genetics

Transcription Factors: PH, physiology

*Zebrafish: EM, embryology

*Zebrafish: GE, genetics

Zebrafish: GD, growth & development

CN 0 (DNA, Complementary); 0 (High Mobility Group Proteins); 0 (Oligodeoxyribonucleotides, Antisense); 0 (SOX9 protein); 0 (Transcription Factors)

L32 ANSWER 8 OF 41 MEDLINE on STN
 ACCESSION NUMBER: 2002681421 MEDLINE
 DOCUMENT NUMBER: 22229466 PubMed ID: 12244130
 TITLE: Nowa, a novel protein with minicollagen Cys-rich domains,
 is involved in nematocyst formation in Hydra.
 COMMENT: Erratum in: J Cell Sci. 2002 Dec 1;115(Pt. 23):4719
 Erratum in: Ozbek S [corrected to Ozbek S] and Engel R
 [corrected to Streitwolf-Engel R]
 AUTHOR: Engel Ulrike; Ozbek Suat; Streitwolf-Engel Ruth; Petri
 Barbara; Lottspeich Friedrich; Holstein Thomas W; Ozbek
 Suat; Engel Ruth
 CORPORATE SOURCE: Institute of Zoology, Darmstadt University of Technology,
 64287 Darmstadt, Germany.
 SOURCE: JOURNAL OF CELL SCIENCE, (2002 Oct 15) 115 (Pt 20) 3923-34.
 Journal code: 0052457. ISSN: 0021-9533.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF539862
 ENTRY MONTH: 200307
 ENTRY DATE: Entered STN: 20021122
 Last Updated on STN: 20030715
 Entered Medline: 20030714

AB The novel protein Nowa was identified in nematocysts, explosive organelles
 of Hydra, **jellyfish**, corals and other CNIDARIA: Biogenesis of
 these organelles is complex and involves assembly of proteins inside a
 post-Golgi vesicle to form a double-layered capsule with a long tubule.
 Nowa is the major component of the outer wall, which is formed very early
 in morphogenesis. The high molecular weight glycoprotein has a modular
 structure with an N-terminal sperm coating glycoprotein domain, a central
 C-type lectin-like domain, and an eightfold repeated cysteine-rich domain
 at the C-terminus. Interestingly, the cysteine-rich domains are
 homologous to the cysteine-rich domains of minicollagens. We have
 previously shown that the cysteines of these minicollagen cysteine-rich
 domains undergo an isomerization process from intra- to intermolecular
 disulfide bonds, which mediates the crosslinking of minicollagens to
 networks in the inner wall of the capsule. The minicollagen cysteine-rich
 domains present in both proteins provide a potential link between Nowa in
 the outer wall and minicollagens in the inner wall. We propose a model
 for nematocyst formation that integrates cytoskeleton rearrangements
 around the post-Golgi vesicle and protein assembly inside the vesicle to
 generate a complex structure that is stabilized by intermolecular
 disulfide bonds.

CT Check Tags: Animal; Support, Non-U.S. Gov't
 Amino Acid Sequence
 Antibodies, Monoclonal: ME, metabolism
 Antigens, Surface: CH, chemistry
 Antigens, Surface: ME, metabolism
 *Collagen: CH, chemistry
 Collagen: ME, metabolism
 Cysteine: CH, chemistry
 Disulfides: CH, chemistry
 Electrophoresis, Gel, Two-Dimensional
 Escherichia coli: GE, genetics
 *Glycoproteins: CH, chemistry

Glycoproteins: ME, metabolism
 Glycosylation
 Hydra: CY, cytology
 *Hydra: ME, metabolism
 Hydra: UL, ultrastructure
 Microtubules: ME, metabolism
 Microtubules: UL, ultrastructure
 Models, Biological
 Molecular Sequence Data
 Molecular Weight
 Protein Conformation
 Protein Folding
 Protein Structure, Tertiary
 Protein Transport
 RNA, Messenger: ME, metabolism
 Recombinant Proteins: ME, metabolism
 Repetitive Sequences, Amino Acid
 Sequence Homology, Amino Acid
 RN 52-90-4 (Cysteine); **9007-34-5 (Collagen)**
 CN 0 (Antibodies, Monoclonal); 0 (Antigens, Surface); 0 (Disulfides); 0
 (Glycoproteins); 0 (RNA, Messenger); 0 (Recombinant Proteins)

L32 ANSWER 9 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:479261 HCAPLUS

DOCUMENT NUMBER: 135:43913

TITLE: **Collagen** extraction from Aurelia and aquatic organism

INVENTOR(S): Ikeda, Tadao; Obu, Etsuji

PATENT ASSIGNEE(S): Toshiba Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001178492	A2	20010703	JP 1999-369047	19991227
PRIORITY APPLN. INFO.:			JP 1999-369047	19991227
AB	Aquatic organism, especially Aurelia, is minced/homogenized to release enzymes such as alkaline protease, incubation to solubilize the minced tissue, and isolation of the collagen and other physiol. useful substances. The method gives higher yield that do the prior arts.			
IC	ICM C12P021-06			
CC	ICS B01D011-04; C12N009-64; C12M001-00; C12M001-06			
	12-1 (Nonmammalian Biochemistry)			
	Section cross-reference(s): 16, 17, 60			
ST	jellyfish Aurelia collagen isolation			
IT	Aquatic animal			
	Aurelia			
	Jellyfish			
	(collagen extraction from Aurelia and aquatic organism)			
IT	Collagens , preparation			
	RL: PUR (Purification or recovery); PREP (Preparation)			
	(collagen extraction from Aurelia and aquatic organism)			
IT	9001-92-7, Protease			

RL: CAT (Catalyst use); USES (Uses)
(alkaline; **collagen** extraction from Aurelia and aquatic organism)

L32 ANSWER 10 OF 41 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2001371654 MEDLINE
DOCUMENT NUMBER: 21299365 PubMed ID: 11406583
TITLE: A switch in disulfide linkage during minicollagen assembly
in Hydra nematocysts.
AUTHOR: Engel U; Pertz O; Fauser C; Engel J; David C N; Holstein T
W
CORPORATE SOURCE: Institute of Zoology, Technical University of Darmstadt,
Schnittspahnstrasse 10, D-64287 Darmstadt, Institute of
Zoology, University of Munich, Luisenstrasse 14, D-80333
Munich, Germany.
SOURCE: EMBO JOURNAL, (2001 Jun 15) 20 (12) 3063-73.
Journal code: 8208664. ISSN: 0261-4189.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200107
ENTRY DATE: Entered STN: 20010730
Last Updated on STN: 20010730
Entered Medline: 20010726

AB The smallest known **collagens** with only 14 Gly-X-Y repeats
referred to as minicollagens are the main constituents of the capsule wall
of nematocysts. These are explosive organelles found in Hydra,
jellyfish, corals and other Cnidaria. Minicollagen-1 of Hydra
recombinantly expressed in mammalian 293 cells contains disulfide bonds
within its N- and C-terminal Cys-rich domains but no interchain
cross-links. It is soluble and self-associates through non-covalent
interactions to form 25-nm-long trimeric helical rod-like molecules. We
have used a polyclonal antibody prepared against the recombinant protein
to follow the maturation of minicollagens from soluble precursors present
in the endoplasmic reticulum and post-Golgi vacuoles to the
disulfide-linked insoluble assembly form of the wall. The switch from
intra- to intermolecular disulfide bonds is associated with 'hardening' of
the capsule wall and provides an explanation for its high tensile strength
and elasticity. The process is comparable to disulfide reshuffling
between the NC1 domains of **collagen** IV in mammalian basement
membranes.

CT Check Tags: Animal; Support, Non-U.S. Gov't
Amino Acid Sequence
*Collagen: BI, biosynthesis
Collagen: GE, genetics
Collagen: SE, secretion
*Disulfides: ME, metabolism
Glycosylation
Hydra
Molecular Sequence Data
Protein Precursors: BI, biosynthesis
Protein Processing, Post-Translational
Recombinant Fusion Proteins: BI, biosynthesis
Recombinant Fusion Proteins: GE, genetics
Recombinant Fusion Proteins: SE, secretion
Solubility

RN 9007-34-5 (Collagen)

CN 0 (Disulfides); 0 (Protein Precursors); 0 (Recombinant Fusion Proteins)

L32 ANSWER 11 OF 41 MEDLINE on STN DUPLICATE 3
 ACCESSION NUMBER: 2001393798 MEDLINE
 DOCUMENT NUMBER: 21127198 PubMed ID: 11223087
 TITLE: Partial purification and characterization of a hemolysin (CAH1) from Hawaiian box **jellyfish** (Carybdea alata) venom.
 AUTHOR: Chung J J; Ratnapala L A; Cooke I M; Yanagihara A A
 CORPORATE SOURCE: Bekesy Laboratory of Neurobiology, Pacific Biomedical Research Center, University of Hawaii at Manoa, Honolulu, HI 96822, USA.
 SOURCE: TOXICON, (2001 Jul) 39 (7) 981-90.
 Journal code: 1307333. ISSN: 0041-0101.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200107
 ENTRY DATE: Entered STN: 20010716
 Last Updated on STN: 20010716
 Entered Medline: 20010712

AB We have isolated and characterized a novel hemolytic protein from the venom of the Hawaiian box **jellyfish** (Carybdea alata). Hemolysis of sheep red blood cells was used to quantitate hemolytic potency of crude venom extracted from isolated nematocysts and venom after fractionation and purification procedures. Hemolytic activity of crude venom was reduced or lost after exposure to the proteolytic enzymes trypsin, **collagenase** and papain. The activity exhibited lectin-like properties in that hemolysis was inhibited by D-lactulose and certain other sugars. Activity was irreversibly lost after dialysis of crude venom against divalent-free, 20mM EDTA buffer; it was optimal in the presence of 10mM Ca²⁺ or Mg²⁺. Two chromatographic purification methods, size fractionation on Sephadex G-200 and anion exchange with quaternary ammonium, provided fractions in which hemolytic activity corresponded to the presence of a protein band with an apparent molecular weight of 42kDa by SDS-PAGE. We have designated this protein as CAH1. The N-terminal sequence of CAH1 was determined to be: XAADAXSTDIDD/GIIG.

CT Check Tags: Animal; In Vitro; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Carbohydrates: TO, toxicity

Cations: CH, chemistry

Chromatography, Ion Exchange

*Cnidarian Venoms: CH, chemistry

Cnidarian Venoms: IP, isolation & purification

Cnidarian Venoms: TO, toxicity

Endopeptidases: CH, chemistry

*Hemolysins: CH, chemistry

Hemolysins: IP, isolation & purification

Hemolysins: TO, toxicity

Hemolysis: DE, drug effects

Indicators and Reagents

Proteins: CH, chemistry

Sheep

Temperature

CN 0 (Carbohydrates); 0 (Cations); 0 (Cnidarian Venoms); 0 (Hemolysins); 0 (Indicators and Reagents); 0 (Proteins); 0 (hemolysin CAH1); EC 3.4.-

(Endopeptidases)

L32 ANSWER 12 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2001:528450 BIOSIS

DOCUMENT NUMBER: PREV200100528450

TITLE: **Jellyfish** as food.AUTHOR(S): Hsieh, Y.-H. Peggy [Reprint author]; Leong, Fui-Ming;
Rudloe, JackCORPORATE SOURCE: Department of Nutrition and Food Science, Auburn
University, Auburn, AL, 36849, USA
hsiehyp@auburn.eduSOURCE: Hydrobiologia, (May, 2001) No. 451, pp. 11-17. print.
CODEN: HYDRB8. ISSN: 0018-8158.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Nov 2001

Last Updated on STN: 23 Feb 2002

AB **Jellyfish** have been exploited commercially by Chinese as an important food for more than a thousand years. Semi-dried **jellyfish** represent a multi-million dollar seafood business in Asia. Traditional processing methods involve a multi-phase processing procedure using a mixture of salt (NaCl) and alum (AlK(SO₄)₂ cntdot 12 H₂O) to reduce the water content, decrease the pH, and firm the texture. Processed **jellyfish** have a special crunchy and crispy texture. They are then desalted in water before preparing for consumption. Interest in utilizing **Stomolophus meleagris** L. Agassiz, cannonball **jellyfish**, from the U. S. as food has increased recently because of high consumer demand in Asia. Desalted ready-to-use (RTU) cannonball **jellyfish** consists of approximately 95% water and 4-5% protein, which provides a very low caloric value. Cannonball **jellyfish** collagen has shown a suppressing effect on antigen-induced arthritis in laboratory rats. With the great abundance of cannonball **jellyfish** in the U. S. coastal waters, turning this **jellyfish** into value-added products could have tremendous environmental and economic benefits.

CC Ecology: environmental biology - General and methods 07502
General biology - Conservation and resource management 00512
Ecology: environmental biology - Wildlife management: aquatic 07516
Food technology - General and methods 13502
Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008

IT Major Concepts
Foods; Wildlife Management (Conservation)

IT Chemicals & Biochemicals
alum; sodium chloride

IT Miscellaneous Descriptors
pH; water content

GT China (Palearctic region)

ORGN Classifier

Cnidaria 41000

Super Taxa

Invertebrata; Animalia

Organism Name

Stomolophus meleagris

jellyfish: fisheries species

Taxa Notes

Animals, Invertebrates

RN 10043-01-3Q (alum)
 10043-67-1Q (alum)
 7647-14-5 (sodium chloride)

L32 ANSWER 13 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:538084 HCAPLUS

DOCUMENT NUMBER: 133:121633

TITLE: Functional fibers treated with mixtures containing functional substances, hydrolyzed proteins and crosslinking agents with good washfastness of functional properties and manufacture thereof and finishing solutions therefor

INVENTOR(S): Monobe, Akio; Sakaida, Tsutomu; Kawai, Yoshifumi; Mizutani, Hiroshi; Konishi, Hiroaki; Kitano, Michio; Chatani, Etsushi

PATENT ASSIGNEE(S): Nippon Menard Cosmetic Co., Ltd., Japan; Aichi Prefecture

SOURCE: Jpn. Tokkyo Koho, 12 pp.

CODEN: JTXXFF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 3038202	B1	20000508	JP 1999-8805	19990118
JP 2000212874	A2	20000802		

PRIORITY APPLN. INFO.: JP 1999-8805 19990118

AB The functional fibers are prepared by treating fibers with compns. comprising functional substances, mixts. of hydrolyzed proteins (A) with average mol. weight (Mw) 2000-6000 and hydrolyzed proteins (B) with Mw 10,000-80,000 with ratio of weight of A to weight of B 0.02-50, and crosslinking agents and heat-treating the fibers. The fibers are antiallergic and are useful for improvement of blood circulation of bodies and slenderizing of anatomical bodies. A nylon fabric was treated with an aqueous solution containing caffeine 2.0, Promois W 4000 (hydrolyzed collagen with Mw 4000) 1.5, HCP-M 15 (hydrolyzed collagen with Mw 29,000) 1.0, and FS-9000 (isocyanate crosslinking agent) 1.5% to pickup 80%, dried, and heat-treated 3 min at 130° to give a functional fabric with caffeine content 0.31% initially and 0.13% after 50 washings.

IC ICM D06M015-15
 ICS D06M013-35; D06M013-395

ICI D06M101-34

CC 40-9 (Textiles and Fibers)
 Section cross-reference(s): 63

ST washfast functional finish fiber; hydrolyzed protein functional finish fabric; collagen hydrolyzed functional finish fabric; fibroin hydrolyzed functional finish fabric; wool keratin hydrolyzed functional finish fabric; caffeine functional finish nylon fabric; fabric functional finish washfast; polyamide fabric functional finish caffeine; antiallergic functional finish fabric washfast; blood circulation improvement fiber functional finish; anatomical body slenderizing property fiber functional finish

IT Fomes japonicus

Jellyfish

(extract; functional fibers treated with mixts. containing functional substances, hydrolyzed proteins and crosslinking agents with good washfastness of functional properties)

IT Collagens, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hydrolyzates, Promois W 4000, HCP-M 15; functional fibers treated with mixts. containing functional substances, hydrolyzed proteins and crosslinking agents with good washfastness of functional properties)

L32 ANSWER 14 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:822613 HCAPLUS

DOCUMENT NUMBER: 134:9381

TITLE: Production of a deodorized marine **collagen** product for use in cosmetics and pharmaceuticals

INVENTOR(S): Allard, Roland; Abdul, Malak Nabil; Huc, Alain

PATENT ASSIGNEE(S): Coletica, Fr.

SOURCE: Ger. Offen., 8 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19929802	A1	20001123	DE 1999-19929802	19990629
FR 2801313	A1	20010525	FR 1999-6326	19990519
US 6660280	B1	20031209	US 1999-435934	19991109
FR 2801314	A1	20010525	FR 2000-6190	20000516
FR 2801314	B1	20020510		
JP 2001009020	A2	20010116	JP 2000-148523	20000519
JP 3327540	B2	20020924		

PRIORITY APPLN. INFO.: FR 1999-6326 A 19990519

AB A marine collagen product is disclosed which can be obtained from marine animals such as fish, jellyfish, mollusks, or muscles and is characterized by absence of strong odor in the collagen or hydrolyzates thereof. The collagen is subjected to a deodorizing process involving oxidation with the aid of metabisulfite, hydrogen peroxide, ozone, etc.

IC ICM C07K014-78

ICS C07K001-14; A61K007-00; A61K038-39; C08L089-00

CC 63-7 (Pharmaceuticals)

ST marine **collagen** deodorizing cosmetic pharmaceutical

IT Medical goods

(dressings, hemostatic; production of a deodorized marine **collagen** product for use in cosmetics and pharmaceuticals)

IT Drug delivery systems

(films, **collagen**; production of a deodorized marine **collagen** product for use in cosmetics and pharmaceuticals)

IT Skin

(fish; production of a deodorized marine **collagen** product for use in cosmetics and pharmaceuticals)

IT Medical goods

(hemostatic sponges; production of a deodorized marine **collagen** product for use in cosmetics and pharmaceuticals)

IT **Collagens**, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)

(hydrolyzates; production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Deodorization

Fish

Freeze drying

Hydrolysis

Jellyfish

Marine animal

Mollusk (Mollusca)

Odor and Odorous substances

Oxidizing agents

Plaice

Sole

Wound healing promoters

(production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Collagens, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)

(production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Sulfites

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Cartilage

(reconstruction of; production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Medical goods

(sponges; production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Crosslinking

(thermal, dehydrational; production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT Drying

(vacuum; production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

IT 7722-84-1, Hydrogen peroxide, biological studies 10028-15-6, Ozone, biological studies 23134-05-6, Metabisulfite

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(production of a deodorized marine collagen product for use in cosmetics and pharmaceuticals)

REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 15 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2001:364452 BIOSIS

DOCUMENT NUMBER: PREV200100364452

TITLE: Material properties shape dynamical responses of hydrozoan

jellyfish.
 AUTHOR(S): Goldman, E. B. [Reprint author]; Daniel, T. L.
 CORPORATE SOURCE: University of Washington, Seattle, WA, USA
 SOURCE: American Zoologist, (December, 2000) Vol. 40, No. 6, pp. 1030. print.
 Meeting Info.: Annual Meeting and Exhibition of the Society for Integrative and Comparative Biology. Chicago, Illinois, USA. January 03-07, 2001. Society for Integrative and Comparative Biology.
 CODEN: AMZOAF. ISSN: 0003-1569.

DOCUMENT TYPE: Conference; (Meeting)
 Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 2 Aug 2001
 Last Updated on STN: 19 Feb 2002

AB Radially symmetrical and composed of acellular mesoglea, two cell layers, and a primitive nervous system, **jellyfish** are an elegantly simple launching point to investigate how material properties of the musculoskeletal system shape the dynamics of locomotion. Mesoglea, composed of mucopolysaccharides, **collagen**, and water, has a characteristic nonlinear response to an applied strain. This study asks how such nonlinearities determine the dynamical response of a **jellyfish's** simple geometry subject to periodic forcing. We compare the strain-dependent stiffness of mesoglea between three species of **jellyfish**, *Mitrocoma cellularia*, *Polyorchis penicillatus*, and *Aequorea victoria*, each with a distinctive overall shape. Because of the nonlinear and time-dependent behavior of mesoglea, we measure the complex modulus by recording its stress in response to sinusoidal strains at a variety of frequencies and mean lengths. Using a simple power law to fit the resultant relationships between complex modulus and mean length, we describe the strength of nonlinearity in mesoglea by the size of the exponent. *Aequorea victoria*, a **jellyfish** with unevenly distributed mesoglea and unusual swimming kinematics, has the highest mesoglea exponent, making it the most strongly nonlinear, while *Mitrocoma cellularia*, a **jellyfish** with a relatively simple geometry and typical swimming kinematics, has the lowest. The exponent describing the mesoglea of *Polyorchis penicillatus* falls in between, although it more closely resembles *Aequorea*. Armed with these estimates, we use a simple dynamical model to show that very subtle changes in the strength of the nonlinearity are manifest as significant changes in the spectral responses of the musculoskeletal system to periodic forcing.

CC General biology - Symposia, transactions and proceedings 00520
 Muscle - Physiology and biochemistry 17504
 Bones, joints, fasciae, connective and adipose tissue - Physiology and biochemistry 18004
 Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008

IT Major Concepts
 Muscular System (Movement and Support); Skeletal System (Movement and Support)

IT Parts, Structures, & Systems of Organisms
 mesoglea; musculoskeletal system: muscular system

IT Miscellaneous Descriptors
 locomotion dynamics; periodic forcing; radial symmetry; simple dynamical model; swimming; Meeting Abstract

ORGN Classifier
 Cnidaria 41000

Super Taxa

Invertebrata; Animalia

Organism Name

Aequorea victoria: **jellyfish**Mitrocoma cellularia: **jellyfish**Polyorchis penicillatus: **jellyfish**

Taxa Notes

Animals, Invertebrates

L32 ANSWER 16 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4

ACCESSION NUMBER: 2000:349105 BIOSIS

DOCUMENT NUMBER: PREV200000349105

TITLE: Isolation and characterization of **collagen** from
rhizostomous **jellyfish** (Rhopilema asamushi).

AUTHOR(S): Nagai, Takeshi [Reprint author]; Worawattanamateekul,
Wanchai; Suzuki, Nobutaka; Nakamura, Takashi; Ito, Tatsumi;
Fujiki, Kazuhiro; Nakao, Miki; Yano, Tomoki

CORPORATE SOURCE: National Fisheries University, Shimonoseki, Yamaguchi,
759-6595, Japan

SOURCE: Food Chemistry, (August, 2000) Vol. 70, No. 2, pp. 205-208.
print.

CODEN: FOCHDJ. ISSN: 0308-8146.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Aug 2000

Last Updated on STN: 7 Jan 2002

AB As a part of the study into the potential development of unused and
under-used resources, **collagen** was isolated from the mesogloea
of the rhizostomous **jellyfish**, *Rhopilema asamushi*, by limited
pepsin digestion and characterized. The yield of this **collagen**
was high (35.2% on a dry weight basis). The primary structure was very
similar to that of pepsin-solubilized **collagen** from edible
jellyfish mesogloea, but it was different from those of the
collagen from edible **jellyfish** exumbrella and the
acid-soluble **collagen** from its mesogloea. The denaturation
temperature (Td) of 28.8degreeC. This **collagen** contained a
large amount of a fourth subunit that was provisionally designated alpha4.
This **collagen** may have the chain composition of an
alphalalpha2alpha3alpha4 heterotetramer.

CC Invertebrata: comparative, experimental morphology, physiology and
pathology - Cnidaria 64008

Biochemistry studies - General 10060

Biochemistry studies - Proteins, peptides and amino acids 10064

Biophysics - Bioengineering 10511

Food technology - General and methods 13502

IT Major Concepts

Biochemistry and Molecular Biophysics; Biomaterials; Foods

IT Parts, Structures, & Systems of Organisms
mesogloea

IT Chemicals & Biochemicals

collagen: characterization, industrial uses, isolation

IT Miscellaneous Descriptors
food chemistry

ORGN Classifier

Cnidaria 41000

Super Taxa

Invertebrata; Animalia
 Organism Name
 Rhopilema asamushi: rhizostomous **jellyfish** species
 Taxa Notes
 Animals, Invertebrates

L32 ANSWER 17 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 DUPLICATE 5

ACCESSION NUMBER: 1999:250516 BIOSIS
 DOCUMENT NUMBER: PREV199900250516
 TITLE: **Collagen** of edible **jellyfish**
 exumbrella.
 AUTHOR(S): Nagai, Takeshi [Reprint author]; Ogawa, Tomoe; Nakamura,
 Takashi; Ito, Tatsumi; Nakagawa, Hisaki; Fujiki, Kazuhiro;
 Nakao, Miki; Yano, Tomoki
 CORPORATE SOURCE: Laboratory of Marine Biochemistry, Faculty of Agriculture,
 Kyushu University, Fukuoka, 812-8581, Japan
 SOURCE: Journal of the Science of Food and Agriculture, (May 1,
 1999) Vol. 79, No. 6, pp. 855-858. print.
 CODEN: JSFAAE. ISSN: 0022-5142.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 2 Jul 1999
 Last Updated on STN: 2 Jul 1999

AB The edible **jellyfish** exumbrella **collagen** was prepared
 by limited pepsin digestion. The yield of **collagen** was very
 high; 46.4% on the basis of lyophilised dry weight. This **collagen**
 was comprised of alphas2alpha3-heterotrimers, moreover it was
 relatively stable at 26.0 degreeC for 60 min. Thus, the edible
jellyfish exumbrella will have potential as an important
collagen source for use in various industries and it is expected
 that the development thus so far unutilised resource will advance in the
 future.
 CC Food technology - Fish and other marine and freshwater products 13522
 Food technology - Evaluations of physical and chemical properties 13530
 IT Major Concepts
 Foods
 IT Parts, Structures, & Systems of Organisms
 exumbrella
 IT Chemicals & Biochemicals
collagen: heterotrimers, stability
 IT Methods & Equipment
 limited pepsin digestion: isolation method
 ORGN Classifier
 Cnidaria 41000
 Super Taxa
 Invertebrata; Animalia
 Organism Name
Stomolophus meleagris [edible **jellyfish**]
 Taxa Notes
 Animals, Invertebrates
 RN 9001-75-6 (PEPSIN)

L32 ANSWER 18 OF 41 MEDLINE on STN DUPLICATE 6
 ACCESSION NUMBER: 2000069155 MEDLINE
 DOCUMENT NUMBER: 20069155 PubMed ID: 10600239
 TITLE: Scyphozoan **jellyfish**'s mesoglea supports

attachment, spreading and migration of anthozoans' cells in vitro.

AUTHOR: Frank U; Rinkevich B

CORPORATE SOURCE: The National Institute of Oceanography, Israel
Oceanographic and Limnological Research, Haifa, 31080,
Israel.. frank@www.zoo.uni-heidelberg.de

SOURCE: CELL BIOLOGY INTERNATIONAL, (1999) 23 (4) 307-11.
Journal code: 9307129. ISSN: 1065-6995.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200002

ENTRY DATE: Entered STN: 20000209
Last Updated on STN: 20000209
Entered Medline: 20000201

AB Mechanically and enzymatically dissociated cells from five anthozoan species were laid on seven substrates in vitro. Cells were taken from two sea anemones (*Aiptasia* sp. and *Anemonia sulcata*), a scleractinian coral (*Stylophora pistillata*) and two alcyonacean corals (*Heteroxenia fuscescence* and *Nephthea* sp). Substrates tested: glass (coverslips), plastic (uncoated tissue culture plates), type IV collagen, gelatin, fibronectin, mesoglea pieces from the scyphozoan jellyfish *Rhopilema nomadica* and acetic acid extract of jellyfish mesoglea. Except for the mesoglea pieces, cells did not respond to any one of the other substrates, retaining their rounded shape. Following contact with mesoglea pieces, cells attached and spread. Subsequently they migrated into the mesogleal matrix at a rate of 5-10 microm/h during the first 2-5 h. No difference was found between the behavior of cells from the five different cnidarian species.
Copyright 1999 Academic Press.

CT Check Tags: Animal; Support, Non-U.S. Gov't

Acetic Acid: ME, metabolism
Cell Adhesion: PH, physiology
Cell Extracts: CH, chemistry
Cnidaria: CY, cytology
Cnidaria: PH, physiology

Collagen: ME, metabolism

*Extracellular Matrix: PH, physiology

Fibronectins: ME, metabolism

Gelatin: ME, metabolism

Glass

Plastics

Scyphozoa: CY, cytology

*Scyphozoa: PH, physiology

Sea Anemones: CY, cytology

Sea Anemones: PH, physiology

RN 64-19-7 (Acetic Acid); 9000-70-8 (Gelatin); 9007-34-5 (Collagen)

CN 0 (Cell Extracts); 0 (Fibronectins); 0 (Glass); 0 (Plastics)

L32 ANSWER 19 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:98076 HCAPLUS

DOCUMENT NUMBER: 128:172096

TITLE: Invertebrate type V telopeptide collagen,
methods of making, and use thereof

INVENTOR(S): Wolfinbarger, Lloyd

PATENT ASSIGNEE(S): Bioscience Consultants, USA

SOURCE: U.S., 8 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5714582	A	19980203	US 1995-405979	19950317
US 6337389	B1	20020108	US 1997-959272	19971028
US 2002147154	A1	20021010	US 2001-999262	20011128
PRIORITY APPLN. INFO.:			US 1995-405979	A2 19950317
			US 2001-959272	A1 20011019

AB This invention relates to a method and process for the production of collagen preps. from marine invertebrates such as scyphozoans (jellyfish) and compns. for these preps. The collagen preparation includes telopeptide and atelopeptide fibrillar collagen of essentially invertebrate type V collagen. The collagen preps. may be used in a variety of medical, dental, cell culture, and food applications.

IC ICM A61K038-17
 ICS C07K001-00; A23J001-02

NCL 530356000

CC 63-3 (Pharmaceuticals)

Section cross-reference(s): 1, 9, 17

ST invertebrate type V telopeptide **collagen** prepn

IT Cnidarian (Cnidaria)

Crosslinking

Freeze drying

Invertebrate

Scyphozoa

Stomolophus meleagris

(invertebrate type V telopeptide **collagen**, methods of making, and use thereof)

IT Alkali metal halides, uses

Salts, uses

RL: NUU (Other use, unclassified); USES (Uses)

(invertebrate type V telopeptide **collagen**, methods of making, and use thereof)

IT Medical goods

(sponges; invertebrate type V telopeptide **collagen**, methods of making, and use thereof)

IT **Collagens**, biological studies

RL: BPN (Biosynthetic preparation); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(type V; invertebrate type V telopeptide **collagen**, methods of making, and use thereof)

IT 50-21-5, Lactic acid, uses 64-19-7, Acetic acid, uses 77-92-9, Citric acid, uses 79-09-4, Propionic acid, uses 110-94-1, Glutaric acid 6915-15-7, Malic acid 7647-01-0, Hydrochloric acid, uses

RL: NUU (Other use, unclassified); USES (Uses)

(invertebrate type V telopeptide **collagen**, methods of making, and use thereof)

REFERENCE COUNT: 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 20 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:217304 HCAPLUS

DOCUMENT NUMBER: 128:294212

TITLE: Processed **jellyfish** with good appearance and crispiness and processing method therefor

INVENTOR(S): Araita, Soichiro; Kaku, Sukeji; Nomoto, Joji; Yamauchi, Takashi

PATENT ASSIGNEE(S): Marutomo K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10084916	A2	19980407	JP 1996-240377	19960911
JP 3184770	B2	20010709		

PRIORITY APPLN. INFO.: JP 1996-240377 19960911

AB The method includes salt pickling **jellyfish**, impregnating whey protein into pickled **jellyfish**, heating at a condition that denatures collagen, but the whey protein, in the **jellyfish**, and cooling.

IC ICM A23L001-325

CC 17-7 (Food and Feed Chemistry)

ST processed **jellyfish** appearance crispiness

IT Food processing

Heating

Jellyfish(processed **jellyfish** with good appearance and crispiness and processing method therefor)

IT Proteins, general, biological studies

RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)

(processed **jellyfish** with good appearance and crispiness and processing method therefor)IT **Collagens**, miscellaneous

RL: MSC (Miscellaneous)

(processed **jellyfish** with good appearance and crispiness and processing method therefor)

IT Denaturation

(protein, of **collagen**; processed **jellyfish** with good appearance and crispiness and processing method therefor)

IT Proteins, specific or class

RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)

(whey; processed **jellyfish** with good appearance and crispiness and processing method therefor)

L32 ANSWER 21 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:547275 HCAPLUS

DOCUMENT NUMBER: 129:328469

TITLE: A toxin homology domain in an astacin-like metalloproteinase of the **jellyfish** Podocoryne carnea with a dual role in digestion and development

AUTHOR(S): Pan, Tair-Long; Groger, Hans; Schmid, Volker; Spring,

CORPORATE SOURCE: Jurg
 Institute of Zoology, University of Basel, Basel,
 CH-4051, Switz.
 SOURCE: Development Genes and Evolution (1998), 208(5),
 259-266
 CODEN: DGEVFT; ISSN: 0949-944X
 PUBLISHER: Springer-Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English

- AB Metalloproteinases of the astacin family such as tolloid play major roles in animal morphogenesis. Cnidarians are thought to be evolutionary simple organisms and, therefore, a metalloproteinase from the marine hydrozoan *P. carnea* was analyzed to evaluate the role of this conserved gene family at the base of animal evolution. Surprisingly, the proteinase domain of Podocoryne PMP1 is more similar to human meprin than to HMP1 from another hydrozoan, the freshwater polyp *Hydra vulgaris*. However, PMP1 and HMP1 both contain a small C-terminal domain with 6 cysteines that distinguishes them from other astacin-like mols. Similar domains have been described only recently from sea anemone toxins specific for potassium channels. This toxin homol. (Tox1) domain is clearly distinct from EGF-like domains or other cysteine-rich modules and terminates with the characteristic pattern CXXXCXXC with 3 out of 6 cysteines in the last 8 residues of the protein. PMP1 is transiently expressed at various sites of morphogenetic activity during medusa bud development. In the adult medusa, however, expression is concentrated to the manubrium, the feeding organ, where the PMP1 gene is highly induced upon feeding. These disparate expression patterns suggest a dual role of PMP1 comparable to tolloid in development and, like astacin in the crayfish, also for food digestion. The Tox1 domain of PMP1 could serve as a toxin to keep the prey paralyzed after ingestion, but as a sequence module such Tox1 domains with 6 cysteines are neither restricted to cnidarians nor to toxins.
- CC 12-3 (Nonmammalian Biochemistry)
 Section cross-reference(s): 3, 6, 7
- ST astacin **jellyfish** digestion development; sequence
 metalloproteinase Podocoryne
- IT Gene, animal
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (PMP1; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)
- IT Gene, animal
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (SMC2orf; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)
- IT Development, nonmammalian postembryonic
 Digestion, biological
 Feeding
 Podocoryne carnea
 Protein sequences
 cDNA sequences
 (astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)
- IT **Collagens**, biological studies
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

(astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT Gene, animal
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (colF1; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT Proteins, specific or class
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (gene SMC2orf; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT 215112-11-1
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (amino acid sequence; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT 215112-12-2 215112-13-3
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (amino acid sequence; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT 143179-21-9, Astacin
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

IT 208628-76-6, GenBank AJ005052 211857-02-2, GenBank AJ009690
 211857-03-3, GenBank AJ009691
 RL: PRP (Properties)
 (nucleotide sequence; astacin-like metalloproteinase of **jellyfish** sequence and role in digestion and development)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 22 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:28663 HCAPLUS

DOCUMENT NUMBER: 128:93180

TITLE: Water-soluble organ extracts with improved biochemical effectiveness

INVENTOR(S): Riemschneider, Randolph

PATENT ASSIGNEE(S): Riemschneider, Randolph, Germany

SOURCE: PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9748404	A1	19971224	WO 1997-EP3214	19970619
W: CN, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

DE 19624476 A1 19980102 DE 1996-19624476 19960619
 DE 19624476 C2 20010104
 CH 692408 A 20020614 CH 1996-1644 19960619

PRIORITY APPLN. INFO.: DE 1996-19624476 A 19960619

AB Diluted organ exts. with improved biochem. effectiveness are taken from cell lines from the resp. organs of animals or parts of plants for use individually or in combination with other exts. in pharmaceutical, cosmetic, and other compns. These exts. are free of pathogens and immunogens, but contain all active components present in exts. of whole organs. Thus, bovine kidney MDBK cells free of bovine diarrhea virus were cultured in Dulbecco's minimal essential medium under 5% CO2 for 2-3 days, the medium was decanted, and the cells were washed, dissociated with trypsin/EDTA, deposited on a set of parallel Ti plates arranged in a perfusion system, incubated with culture medium to the desired cell d., and harvested by replacing the growth medium with a trypsin solution. The cells were then washed, ground in a colloid mill, and extracted with Et2O, and the extract was centrifuged, filtered, and dialyzed against 0.3% aqueous

Nipagin

solution to produce a protein-free and a protein-containing beef kidney extract

IC ICM A61K035-23

ICS A61K035-50; A61K035-26; A61K035-78; A61K007-48

CC 63-3 (Pharmaceuticals)

Section cross-reference(s): 62

IT Caviar

Jellyfish

(extract, substitute for; water-soluble organ exts. with improved biochem. effectiveness)

IT **Collagens**, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(hydroxyproline-containing plant extract as substitute for; water-soluble

organ

exts. with improved biochem. effectiveness)

IT 51-35-4, Hydroxyproline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(plant extract containing, as **collagen** substitute; water-soluble organ exts. with improved biochem. effectiveness)

L32 ANSWER 23 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 DUPLICATE 7

ACCESSION NUMBER: 1997:392923 BIOSIS

DOCUMENT NUMBER: PREV199799692126

TITLE: Differential scanning calorimetry of several
jellyfish mesogloea.

AUTHOR(S): Nagai, Takeshi [Reprint author]; Hamada, Moritsugu; Kai, Norihisa; Tanoue, Yasuhiro; Nagayama, Fumio

CORPORATE SOURCE: Dep. Food Sci. Technol., Natl. Fisheries Univ., Shimonoseki, Yamaguchi 759-65, Japan

SOURCE: Fisheries Science (Tokyo), (1997) Vol. 63, No. 3, pp. 459-461.

ISSN: 0919-9268.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Sep 1997

Last Updated on STN: 10 Sep 1997

AB Thermal properties of several **jellyfish** mesogloea were studied

using the differential scanning calorimeter. As a result, the three endothermic peaks were shown for many **jellyfish**. The first, second, and third peak corresponded to myosin, sarcoplasmic proteins and/or **collagen**, and actin. Each transition temperature (T_m) in **jellyfish** were lower than those in mammals. Although the three endothermic peaks were shown for hydrozoan **jellyfish**, the highest T_m were lower than the lowest one for the other **jellyfish**. Only two peaks were shown for cubic **jellyfish**. It was suggested that the first and second peak corresponded to sarcoplasmic protein and/or **collagen** and actin. Moreover, it did not related between the water temperature in the sampling occasion and the denaturation temperature of each protein in **jellyfish**.

CC Biochemistry studies - Proteins, peptides and amino acids 10064
 Biophysics - Molecular properties and macromolecules 10506
 External effects - Temperature as a primary variable 10614
 Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008
 IT Major Concepts
 Biochemistry and Molecular Biophysics; Physiology
 IT Chemicals & Biochemicals
 ACTIN
 IT Miscellaneous Descriptors
 ACTIN; ANALYTICAL METHOD; **COLLAGEN**; DIFFERENTIAL SCANNING
 CALORIMETRY; MESOGLEA; METHODOLOGY; MYOSIN; SARCOPLASMIC PROTEIN; WATER
 TEMPERATURE
 RN 132579-20-5 (ACTIN)

L32 ANSWER 24 OF 41 MEDLINE on STN DUPLICATE 8
 ACCESSION NUMBER: 96292011 MEDLINE
 DOCUMENT NUMBER: 96292011 PubMed ID: 8653581
 TITLE: The evolution of fibrillar **collagens**: a sea-pen **collagen** shares common features with vertebrate type V **collagen**.
 AUTHOR: Tillet E; Franc J M; Franc S; Garrone R
 CORPORATE SOURCE: Institut de Biologie et Chimie des Proteines, Lyon, France.
 SOURCE: COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART B, BIOCHEMISTRY AND MOLECULAR BIOLOGY, (1996 Feb) 113 (2) 239-46.
 Journal code: 9516061. ISSN: 1096-4959.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199607
 ENTRY DATE: Entered STN: 19960808
 Last Updated on STN: 19960808
 Entered Medline: 19960730

AB The extracellular matrix of marine primitive invertebrates (sponges, polyps and **jellyfishes**) contains **collagen** fibrils with narrow diameters. From various data, it has been hypothesized that these primitive **collagens** could represent ancestral forms of the vertebrate minor **collagens**, i.e., types V or XI. Recently we have isolated a primitive **collagen** from the soft tissues of the sea-pen *Veretillum cynomorium*. This report examines whether the sea-pen **collagen** shares some features with vertebrate type V **collagen**. Rotary shadowed images of acid-soluble **collagen** molecules extracted from beta-APN treated animals, positive staining of

segment-long-spacing crystallites precipitated from pepsinized **collagen**, Western blots of the pepsinized alpha1 and alpha2 chains with antibodies to vertebrate types I, III and V **collagens**, and in situ gold immunolabeling of ECM **collagen** fibrils were examined. Our results showed that the tissue form of the sea-pen **collagen** is a 340-nm threadlike molecule, which is close to the vertebrate type V **collagen** with its voluminous terminal globular domain, the distribution of most of its polar amino-acid residues, and its antigenic properties.

CT Check Tags: Animal; Female; Human

Amino Acid Sequence

Antibodies

*Collagen: CH, chemistry

Collagen: IP, isolation & purification

Collagen: UL, ultrastructure

Microscopy, Electron

Microscopy, Immunoelectron

Molecular Sequence Data

Pepsin A

Peptide Fragments: CH, chemistry

Peptide Fragments: IP, isolation & purification

Placenta: CH, chemistry

Pregnancy

Rats

*Squid: CH, chemistry

Vertebrates

RN 9007-34-5 (Collagen)

CN 0 (Antibodies); 0 (Peptide Fragments); EC 3.4.23.1 (Pepsin A)

L32 ANSWER 25 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:842558 HCAPLUS

DOCUMENT NUMBER: 123:237525

TITLE: Method for preparing **collagen** from cnidarians, and resulting cosmetic compositions

INVENTOR(S): Ranson, Michele; David, Marc

PATENT ASSIGNEE(S): Javenech, Fr.

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9517428	A1	19950629	WO 1994-FR1494	19941220
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2714063	A1	19950623	FR 1993-15318	19931220
FR 2714063	B1	19960308		
EP 808332	A1	19971126	EP 1995-904572	19941220
EP 808332	B1	20000524		
R: BE, CH, DE, DK, ES, GB, IT, LI, NL, SE				
ES 2148481	T3	20001016	ES 1995-904572	19941220
PRIORITY APPLN. INFO.:			FR 1993-15318	A 19931220
			WO 1994-FR1494	W 19941220

AB A method for preparing collagen by washing cnidarians, particularly

pre-frozen and pre-crushed jellyfish, and subjecting them to acid extraction, centrifugation and saline precipitation. Collagen with an amino acid composition

including less than 7% alanine and at least 0.5% cystine is thereby obtained. Collagen comprising 1.01% cysteine, and 4.45% alanine was prepared according to above method. Formulations of cosmetic emulsions containing above collagens are disclosed.

IC ICM C07K014-78

ICS A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 9

ST **collagen** prepn cnidarian cosmetic pharmaceutical;

jellyfish collagen prepn cosmetic pharmaceutical

IT Coelenterate

Cosmetics

Jellyfish

Pharmaceutical dosage forms

Rhizostoma pulmo

Scyphozoa

(preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT Amino acids, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT **Collagens**, biological studies

RL: BUU (Biological use, unclassified); PUR (Purification or recovery);

THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT Cosmetics

(creams, preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT Cosmetics

(emulsions, preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT Cosmetics

(gels, preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

IT 52-90-4, Cysteine, biological studies 56-41-7, Alanine, biological studies 1190-94-9

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(preparation of **collagen** from cnidarians for cosmetic and pharmaceutical compns.)

L32 ANSWER 26 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1995:242365 BIOSIS

DOCUMENT NUMBER: PREV199598256665

TITLE: Differential expression of a metalloprotease in striated muscle transdifferentiation of **jellyfish**.

AUTHOR(S): Pan, Tair-Long; Schmid, Volker; Spring, Jurg

CORPORATE SOURCE: Zool. Inst., Univ. Basel, Rheinsprung 9, CH-4051 Basel, Switzerland

SOURCE: Experientia (Basel), (1995) Vol. 51, No. ABSTR., pp. A63.

Meeting Info.: 27th Annual Meeting of the Swiss Societies
for Experimental Biology (USGEB/USSBE). Fribourg,
Switzerland. March 30-31, 1995.
CODEN: EXPEAM. ISSN: 0014-4754.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 1995

Last Updated on STN: 9 Jun 1995

CC General biology - Symposia, transactions and proceedings 00520
Cytology - Animal 02506
Genetics - Animal 03506
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Minerals 10069
Enzymes - Physiological studies 10808
Muscle - Physiology and biochemistry 17504
Invertebrata: comparative, experimental morphology, physiology and
pathology - Cnidaria 64008
IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Genetics; Muscular
System (Movement and Support); Physiology
IT Chemicals & Biochemicals
METALLOPROTEASE; ZINC; **COLLAGENASE**
IT Miscellaneous Descriptors
COLLAGENASE; COMPLEMENTARY DNA; MEETING ABSTRACT; MESSENGER
RNA; POLYMERASE CHAIN REACTION; ZINC
ORGN Classifier
Cnidaria 41000
Super Taxa
Invertebrata; Animalia
Organism Name
Podocoryne carnea
Taxa Notes
Animals, Invertebrates
RN 81669-70-7 (METALLOPROTEASE)
7440-66-6 (ZINC)
9001-12-1 (**COLLAGENASE**)

L32 ANSWER 27 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:525183 HCAPLUS

DOCUMENT NUMBER: 119:125183

TITLE: Aqueous synthetic organ extracts

PATENT ASSIGNEE(S): Schuelke und Mayr G.m.b.H., Germany

SOURCE: Ger. Offen., 23 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4139639	A1	19930603	DE 1991-4139639	19911202
WO 9310802	A1	19930610	WO 1992-DE1028	19921202
W: JP, US				
EP 552516	A1	19930728	EP 1992-250349	19921202

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE
 JP 06506000 T2 19940707 JP 1993-509719 19921202
 PRIORITY APPLN. INFO.: DE 1991-4139639 19911202
 DE 1992-4227633 19920818
 WO 1992-DE1028 19921202

AB Aqueous synthetic organ exts. are prepared which have an activity spectrum comparable to that of the corresponding natural organ extract, but without the side effects due to the presence of pathogen or virus proteins, protein degradation products, and hormones. The synthetic exts. contain amino acids, peptides, nucleotides, carbohydrates, C3-6 aliphatic carboxylic acids, C2-7 aliphatic and/or aromatic alcs., and optionally vitamins, mineral salts and/or trace elements, buffers, and preservatives. Prepns. of synthetic placenta, serum, spleen, thymus, and connective tissue exts. and collagen hydrolyzate are cited as examples. The exts. are useful in cosmetics, to stimulate wound healing, immunity, and cell metabolism, and for treatment of digestive tract disorders, especially ulcers.

IC ICM C07K015-06
 ICS C07K003-02; A61K035-16; A61K035-50; A61K037-02

CC 63-3 (Pharmaceuticals)
 Section cross-reference(s): 62

IT Amniotic fluid
 Blood
 Caviar
 Connective tissue

Jellyfish

Mammary gland
 Organ
 Placenta
 Spleen
 Thymus gland

Collagens, biological studies

RL: BIOL (Biological study)
 (exts., aqueous, synthetic, for cosmetics and pharmaceuticals)

L32 ANSWER 28 OF 41 MEDLINE on STN DUPLICATE 9

ACCESSION NUMBER: 92111563 MEDLINE
 DOCUMENT NUMBER: 92111563 PubMed ID: 1730224
 TITLE: Characterization of heterotrimeric collagen molecules in a sea-pen (Cnidaria, Octocorallia).
 AUTHOR: Tillet-Barret E; Franc J M; Franc S; Garrone R
 CORPORATE SOURCE: Laboratoire de Cytologie Moléculaire, CNRS UPR 412, Université Claude Bernard, Villeurbanne, France.
 SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (1992 Jan 15) 203 (1-2) 179-84.
 Journal code: 0107600. ISSN: 0014-2956.
 PUB. COUNTRY: GERMANY; Germany, Federal Republic of
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199202
 ENTRY DATE: Entered STN: 19920308
 Last Updated on STN: 19920308
 Entered Medline: 19920219

AB The collagen of a primitive invertebrate, the sea-pen Veretillum (Cnidaria, Octocorallia), was studied with respect to its molecular-chain composition. The soft extracellular tissues (mesoglea) were solubilized by limited pepsin proteolysis and the collagen was isolated by

selective precipitation at 0.7 M NaCl under acidic conditions. The pepsinized molecules were 260 nm in length, as demonstrated by electron microscope studies of rotary-shadowed molecules and of the segment-long-spacing crystallites obtained by dialysis against ATP. SDS/PAGE of the extract produced two main bands susceptible to bacterial **collagenase**, designated as the alpha 1 and alpha 2 chain, which were differentiated clearly by their CNBr cleavage products and the higher glycosylation rate of the alpha 2 chain. The latter finding corresponds with the high hydroxylysine content of the alpha 2 chain. The alpha 1/alpha 2 chain ratio observed in SDS/PAGE and the fact that only one peak was obtained by concanavalin-A affinity chromatography of a non-denatured 0.7 M NaCl extract demonstrate the alpha 1 [alpha 2]₂ molecular structure of this **collagen**. These results contrast with data on the structure of other coelenterates (i.e. [alpha]₃ for sea anemone **collagen** molecules and alpha 1 alpha 2 alpha 3 for **jellyfish collagen** molecules). They are discussed in relation to the evolution of **collagen**.

CT Check Tags: Animal
 Amino Acids: AN, analysis
 Chromatography, Affinity
 Chromatography, High Pressure Liquid
 *Collagen: CH, chemistry
 Collagen: UL, ultrastructure
 Cyanogen Bromide
 Electrophoresis, Polyacrylamide Gel
 *Hydra: CH, chemistry
 Microscopy, Electron
 Pepsin A: CH, chemistry
 RN 506-68-3 (Cyanogen Bromide); 9007-34-5 (Collagen)
 CN 0 (Amino Acids); EC 3.4.23.1 (Pepsin A)

L32 ANSWER 29 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1991:534631 HCAPLUS
 DOCUMENT NUMBER: 115:134631
 TITLE: **Jellyfish-like foods and their manufacture from collagens**
 INVENTOR(S): Nomura, Satoshi; Hayade, Takeshi; Fujimoto, Toshio
 PATENT ASSIGNEE(S): Nippi Collagen Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03061451	A2	19910318	JP 1990-33455	19900214
JP 2854914	B2	19990210		

PRIORITY APPLN. INFO.: JP 1989-73250 19890324

AB Aqueous collagen dispersions are formed into sheets and the sheets are concentrated

(dehydrated), hardened (crosslinked), and passed through hot water to manufacture jellyfish-like foods. Insol. collagen of cowhide was treated with protease at pH 3.0, neutralized, centrifuged, and the collected collagen fibers were mixed with lactic acid to pH 3.0 to manufacture an aqueous 5% solubilized collagen solution. The solution was defoamed and extruded into saturated

aqueous NaCl solution to give .apprx.1.5-1.8 mm-thick sheets, which were crosslinked by aqueous alum, treated with aqueous glucose, dried, heated at 80° for 5 h, treated with H2O at 100° for 60 s, and cooled to manufacture .apprx.1.7-2.5 mm-thick pale yellow jellyfish-like food.

IC ICM A23J003-04
ICS A23J003-00; A23L001-312
CC 17-7 (Food and Feed Chemistry)
ST **jellyfish** like food **collagen**
IT Gelatins, biological studies
RL: BIOL (Biological study)
(**jellyfish**-like foods containing alginic acid salts and)
IT **Jellyfish**
(substitutes, **collagen** modification for manufacture of)
IT **Collagens**, compounds
RL: BIOL (Biological study)
(hydrolyzates, crosslinked, **jellyfish**-like foods containing)
IT 9005-38-3, Sodium alginate
RL: BIOL (Biological study)
(**jellyfish**-like foods manufacture from aqueous **collagens** and)

L32 ANSWER 30 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1992:226365 BIOSIS
DOCUMENT NUMBER: PREV199242107865; BR42:107865
TITLE: **COLLAGENS OF JELLYFISH AURELIA-AURITA.**
AUTHOR(S): SATO A [Reprint author]; SHIMIZU K; KINOSHITA T; YOSHIKATO K
CORPORATE SOURCE: MOL CELL SCI LAB, ZOOL INST, FAC SCI, HIROSHIMA UNIV, HIROSHIMA
SOURCE: Zoological Science (Tokyo), (1991) Vol. 8, No. 6, pp. 1133.
Meeting Info.: SIXTY-SECOND ANNUAL MEETING OF THE ZOOLOGICAL SOCIETY OF JAPAN, OKAYAMA, JAPAN, OCTOBER 13-15, 1991. ZOOL SCI (TOKYO).
CODEN: ZOSCEX. ISSN: 0289-0003.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 5 May 1992
Last Updated on STN: 5 May 1992

CC General biology - Symposia, transactions and proceedings 00520
Cytology - Animal 02506
Comparative biochemistry 10010
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Molecular properties and macromolecules 10506
Bones, joints, fasciae, connective and adipose tissue - Physiology and biochemistry 18004
Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008
IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Physiology; Skeletal System (Movement and Support)
IT Miscellaneous Descriptors
ABSTRACT BIOCHEMICAL PROPERTIES IMMUNOLOGIC CROSS-REACTIVITY ENDODERM ECTODERM MESOGLEA
ORGN Classifier
Cnidaria 41000
Super Taxa

Invertebrata; Animalia
Taxa Notes
Animals, Invertebrates

L32 ANSWER 31 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 10

ACCESSION NUMBER: 1992:110007 BIOSIS
DOCUMENT NUMBER: PREV199242050007; BR42:50007
TITLE: THE EXTRACELLULAR MATRIX MESOGLEA OF HYDROZOAN
JELLYFISH AND ITS ABILITY TO SUPPORT CELL ADHESION
AND SPREADING.
AUTHOR(S): SCHMID V [Reprint author]; BALLY A; BECK K; HALLER M;
SCHLAGE W K; WEBER C
CORPORATE SOURCE: INST ZOOL, RHEINSPRUNG 9, CH-4051 BASEL, SWITZ
SOURCE: Hydrobiologia, (1991) Vol. 216-217, pp. 3-10.
Meeting Info.: FIFTH INTERNATIONAL CONFERENCE ON
COELENTERATE BIOLOGY, SOUTHAMPTON, ENGLAND, UK, JULY 10-14,
1989. HYDROBIOLOGIA.
CODEN: HYDRB8. ISSN: 0018-8158.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 24 Feb 1992
Last Updated on STN: 24 Feb 1992

CC General biology - Symposia, transactions and proceedings 00520
Comparative biochemistry 10010
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Molecular properties and macromolecules 10506
Anatomy and Histology - Comparative anatomy 11103
Anatomy and Histology - Microscopic and ultramicroscopic anatomy 11108
Invertebrata: general and systematic - Cnidaria 63508
Invertebrata: comparative, experimental morphology, physiology and
pathology - Cnidaria 64008

IT Major Concepts
Biochemistry and Molecular Biophysics; Morphology; Physiology;
Systematics and Taxonomy

IT Miscellaneous Descriptors
VERTEBRATE **COLLAGEN** LAMININ FIBRONECTIN MESOGLEA SYSTEMATICS

ORGN Classifier
Cnidaria 41000
Super Taxa
Invertebrata; Animalia
Taxa Notes
Animals, Invertebrates

ORGN Classifier
Vertebrata 85150
Super Taxa
Chordata; Animalia
Taxa Notes
Animals, Chordates, Nonhuman Vertebrates, Vertebrates

L32 ANSWER 32 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:484622 HCAPLUS
DOCUMENT NUMBER: 113:84622
TITLE: Cosmetics containing solubilized **collagen**
having helical $\alpha 1$, $\alpha 2$, and $\alpha 3$ chains
INVENTOR(S): Hamazaki, Taihei; Kimura, Shigeru

PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02115112	A2	19900427	JP 1988-265766	19881021
PRIORITY APPLN. INFO.:			JP 1988-265766	19881021
AB	Cosmetics, which have good moisturizing and skin-covering effects and are not sticky or tacky, contain solubilized collagen (sugar content ≥ 3 weight%) having helical $\alpha 1$, $\alpha 2$, and $\alpha 3$ chains. A skin emulsion was prepared from squalane 20.0, glycerin monostearate 1.5, polyethylene glycol monostearate 2.0, acetate buffer 76.42, and solubilized collagen [containing 9.6 weight% sugar, prepared by hydrolysis of <i>Rhopilema esculenta</i> (jellyfish) with pepsin] 0.08 part by weight			
IC	ICM A61K007-00 ICS A61K007-48; C07K015-20			
CC	62-1 (Essential Oils and Cosmetics)			
ST	moisturizer collagen jellyfish cosmetic; <i>Rhopilema collagen</i> moisturizer cosmetic			
IT	<i>Rhopilema esculenta</i> Stomolophus normurai (collagen having helical $\alpha 1$ and $\alpha 2$ and $\alpha 3$ chains from, as moisturizer, cosmetics containing)			
IT	Cosmetics Shampoos (containing solubilized collagen having helical $\alpha 1$ and $\alpha 2$ and $\alpha 3$ chains from jellyfish , as moisturizer)			
IT	Hair preparations (containing solubilized collagen having helical $\alpha 1$ and $\alpha 2$ and $\alpha 3$ chains jellyfish , as moisturizer)			
IT	Collagens , biological studies RL: BIOL (Biological study) (solubilized, having helical $\alpha 1$ and $\alpha 2$ and $\alpha 3$ chains, from jellyfish , as moisturizer, cosmetics containing)			

L32 ANSWER 33 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 ACCESSION NUMBER: 1989:245783 BIOSIS
 DOCUMENT NUMBER: PREV198987126848; BA87:126848
 TITLE: PRIMARY CULTURE OF IDENTIFIED NEURONS FROM A CNIDARIAN.
 AUTHOR(S): PRZYSIEZNIAK J [Reprint author]; SPENCER A N
 CORPORATE SOURCE: DEP ZOOLOGY, UNIV ALBERTA, EDMONTON, ALBERTA, T6G 2E9, CANADA
 SOURCE: Journal of Experimental Biology, (1989) Vol. 142, pp. 97-114.
 CODEN: JEBIAM. ISSN: 0022-0949.
 DOCUMENT TYPE: Article
 FILE SEGMENT: BA
 LANGUAGE: ENGLISH
 ENTRY DATE: Entered STN: 20 May 1989
 Last Updated on STN: 20 May 1989

AB Several types of neurones were dissociated from the nerve-rings of the hydrozoan **jellyfish** *Polyorchis penicillatus*, using

collagenase digestion preceded, and if necessary followed, by removal of external divalent cations. The neurones were cultured for up to 2 weeks in artificial sea water, on a mesogloeal substratum. One subset of large neurones, the swimming motor neurones (SMNs; soma approx. $20 + 50 \mu\text{m}$), exhibited distinct morphological features in vitro, such as large size, wide processes, clear cytoplasm and membranous inclusions around the nucleus. These neurones retained their characteristic action potential shape in culture, with spikes measuring $50 \pm 11 \text{ mV}$ ($N = 18$) in peak amplitude and $37 \pm 11 \text{ ms}$ in duration. SMNs could be labelled in vivo with carboxyfluorescein or Lucifer Yellow, subsequently dissociated, and identified in vitro. Two subsets of small neurones were also identifiable. One exhibited electrophysiological similarities with B system neurones, known to be presynaptic to the SMNs in vivo, showing a burstlike pattern of spikes of short duration ($5 \cdot 4 \pm 1 \cdot 4 \text{ ms}$; $N = 6$) and small amplitude ($25 \pm 7 \text{ mV}$). Another subset of small neurones could be labelled with antiserum against the carboxy-terminal peptide moiety, Arg-Phe-amide. Biophysical and neurotransmitter studies at the level of the single identified hydrozoan neurone will be easier in isolated cell culture. This approach will avoid problems encountered in studying the semidissected nerve-ring preparation.

CC Cytology - Animal 02506
 Biochemistry studies - Minerals 10069
 Biophysics - Membrane phenomena 10508
 Metabolism - Minerals 13010
 Tissue culture, apparatus, methods and media 32500
 In vitro cellular and subcellular studies 32600
 Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008
 IT Major Concepts
 Cell Biology; Membranes (Cell Biology); Metabolism; Physiology
 IT Miscellaneous Descriptors
 POLYORCHIS-PENICILLATUS DIVALENT CATION RING NERVE
 ORGN Classifier
 Cnidaria 41000
 Super Taxa
 Invertebrata; Animalia
 Taxa Notes
 Animals, Invertebrates

L32 ANSWER 34 OF 41 MEDLINE on STN DUPLICATE 11
 ACCESSION NUMBER: 88329496 MEDLINE
 DOCUMENT NUMBER: 88329496 PubMed ID: 2901374
 TITLE: Species specificity in cell-substrate interactions in medusae.
 AUTHOR: Schmid V; Bally A
 CORPORATE SOURCE: Institute of Zoology, University of Basle, Switzerland.
 SOURCE: DEVELOPMENTAL BIOLOGY, (1988 Oct) 129 (2) 573-81.
 Journal code: 0372762. ISSN: 0012-1606.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198810
 ENTRY DATE: Entered STN: 19900308
 Last Updated on STN: 19950206
 Entered Medline: 19881027

AB A new system is described for the study of ECM-tissue interactions, using the ECM (called mesogloea) of various cnidarians and isolated striated muscle and endodermal tissue of **jellyfish**. The mesogloea consists mainly of water and **collagen**. It is present in all cnidarians and can be isolated without enzyme treatment. It can be used as a substrate to which cells and tissues adhere and on which they spread and migrate. Tissues of striated muscle and endoderm adhere and spread not only on mesogloea from regions they normally cover, but also from other regions of the animal. However, adhesion and spreading are highly species-specific. Species-specific adhesion is found throughout the whole mass of mesogloea even at regions where cells do not occur naturally. The cell adhesion factor can be extracted from the mesogloea so that the mesogloea no longer shows any cell adhesion properties. The extract consists mainly of a cysteine-containing **collagen**.

CT Check Tags: Animal; Support, Non-U.S. Gov't

Cell Adhesion

Cell Movement

*Cnidaria: PH, physiology

*Extracellular Matrix: PH, physiology

Muscles: CY, cytology

Scyphozoa: CY, cytology

*Scyphozoa: PH, physiology

Species Specificity

Tissue Extracts

CN 0 (Tissue Extracts)

L32 ANSWER 35 OF 41

MEDLINE on STN

DUPLICATE 12

ACCESSION NUMBER: 86236448 MEDLINE

DOCUMENT NUMBER: 86236448 PubMed ID: 2872737

TITLE: Platelet aggregation caused by a partially purified **jellyfish** toxin from *Carybdea rastonii*.

AUTHOR: Azuma H; Sekizaki S; Satoh A; Nakajima T; Ishikawa M

SOURCE: TOXICON, (1986) 24 (5) 489-99.

Journal code: 1307333. ISSN: 0041-0101.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198607

ENTRY DATE: Entered STN: 19900321

Last Updated on STN: 19950206

Entered Medline: 19860716

AB A partially purified toxin (pCrTX) was obtained from the tentacles of the **jellyfish**, *Carybdea rastonii*. When pCrTX (3×10^{-8} - 3×10^{-7} g/ml) was added to citrated platelet-rich plasma, aggregation was produced in a concentration-dependent manner. Scanning electron microscopic examination revealed that both pCrTX and **collagen** produced aggregates of platelets possessing many pseudopods. The concentration which produced 50% aggregation for pCrTX was 1.8×10^{-7} g/ml, as compared to 2.3×10^{-6} g/ml for **collagen**. The pCrTX-induced aggregation was only slightly inhibited by indomethacin and quinacrine in concentrations sufficient to inhibit arachidonic acid- and **collagen**-induced aggregation. pCrTX was less active in washed platelets suspended in Ca^{2+} free medium, whereas the pCrTX-induced aggregation was significantly augmented in the presence of Ca^{2+} . The augmentation of aggregation by Ca^{2+} was only slightly attenuated by pretreatment with 100 microM verapamil. pCrTX significantly increased the

concentration of cytoplasmic free Ca^{2+} ($[\text{Ca}^{2+}]_i$) and depolarized the platelet membrane in concentrations that produced aggregation. The increase in $[\text{Ca}^{2+}]_i$ caused by pCrTX was little affected by verapamil. The depolarization by pCrTX was unchanged in the presence or absence of Ca^{2+} , or by sodium or potassium transport inhibitors. The movement of $^{22}\text{Na}^{+}$ into platelets was significantly increased by pCrTX. This increase in the movement of $^{22}\text{Na}^{+}$ into platelets was unaffected by tetrodotoxin. On the other hand, pCrTX-induced aggregation, depolarization and the increase in $[\text{Ca}^{2+}]_i$ were all significantly attenuated in low Na^{+} medium. These results suggest that pCrTX causes a massive depolarization by increasing cation permeability indiscriminately and this generalized depolarization permits an inward movement of calcium down an electrochemical gradient which, in turn triggers platelet aggregation.

CT Check Tags: Animal; Comparative Study; In Vitro

Blood Platelets: ME, metabolism

Blood Platelets: UL, ultrastructure

Calcium: BL, blood

Cnidarian Venoms: AI, antagonists & inhibitors

Cnidarian Venoms: IP, isolation & purification

*Cnidarian Venoms: PD, pharmacology

Collagen: PD, pharmacology

Cytoplasm: ME, metabolism

Membrane Potentials: DE, drug effects

Microscopy, Electron, Scanning

*Platelet Aggregation: DE, drug effects

Rabbits

Scyphozoa

RN 7440-70-2 (Calcium); 9007-34-5 (Collagen)

CN 0 (Cnidarian Venoms)

L32 ANSWER 36 OF 41

MEDLINE on STN

DUPLICATE 13

ACCESSION NUMBER: 86177606 MEDLINE

DOCUMENT NUMBER: 86177606 PubMed ID: 2870502

TITLE: Platelet aggregation caused by *Carybdea rastonii* toxins (CrTX-I, II and III) obtained from a jellyfish, *Carybdea rastonii*.

AUTHOR: Azuma H; Sekizaki S; Satoh A; Nakajima T

SOURCE: PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1986 May) 182 (1) 34-42.
Journal code: 7505892. ISSN: 0037-9727.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198605

ENTRY DATE: Entered STN: 19900321

Last Updated on STN: 19950206

Entered Medline: 19860516

AB The pharmacological mechanisms of platelet aggregation induced by highly toxic proteins (CrTX-I, CrTX-II, and CrTX-III) obtained from tentacles of a jellyfish, *Carybdea rastonii*, were investigated. When the partially purified toxin (pCrTX) and CrTXs were added to the citrated platelet-rich plasma (PRP), aggregation was produced in a concentration-dependent manner. The activity of CrTXs was approximately 100 times more potent than pCrTX. The CrTXs-induced aggregation was little affected by indomethacin and quinacrine at concentrations sufficient to inhibit arachidonic acid- and collagen-induced

aggregation. The CrTXs-induced aggregation in washed platelets was significantly augmented in the presence of Ca^{2+} . The pretreatment with verapamil failed to modify this augmentation of aggregation. The concentration of cytoplasmic-free calcium ($[\text{Ca}^{2+}]_i$) of platelets was increased by CrTXs at the same concentrations that produced aggregation. This effect of CrTXs was again little affected by verapamil. CrTXs at the same concentrations as those that produced aggregation and increased $[\text{Ca}^{2+}]_i$ caused depolarization of platelets, which was unchanged after pretreatment with sodium or potassium transport inhibitors. CrTX-I significantly increased the ^{22}Na flux into platelets and this effect of CrTX-I was unaffected by tetrodotoxin. The CrTX-I-induced aggregation, depolarization, and increase in $[\text{Ca}^{2+}]_i$ were all significantly attenuated in the low Na^+ medium. These results suggest that CrTXs cause a massive depolarization by increasing cation permeability and this generalized depolarization permits an inward movement of Ca^{2+} down its electrochemical gradient which, in turn, triggers platelet aggregation.

CT Check Tags: Animal

Blood Platelets: PH, physiology

Calcium: ME, metabolism

Cell Membrane: PH, physiology

Chromatography, Gel

Cnidarian Venoms: IP, isolation & purification

*Cnidarian Venoms: PD, pharmacology

Dose-Response Relationship, Drug

Indomethacin: PD, pharmacology

Membrane Potentials: DE, drug effects

*Platelet Aggregation: DE, drug effects

Quinacrine: PD, pharmacology

Rabbits

Scyphozoa

Sodium: ME, metabolism

Verapamil: PD, pharmacology

RN 52-53-9 (Verapamil); 53-86-1 (Indomethacin); 7440-23-5 (Sodium); 7440-70-2 (Calcium); 83-89-6 (Quinacrine)

CN 0 (Cnidarian Venoms)

L32 ANSWER 37 OF 41 MEDLINE on STN

DUPLICATE 14

ACCESSION NUMBER: 86059393 MEDLINE

DOCUMENT NUMBER: 86059393 PubMed ID: 2866183

TITLE: **Jellyfish mesogloea collagen.**
Characterization of molecules as alpha 1 alpha 2 alpha 3 heterotrimers.

AUTHOR: Miura S; Kimura S

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1985 Dec 5) 260 (28) 15352-6.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198601

ENTRY DATE: Entered STN: 19900321

Last Updated on STN: 19950206

Entered Medline: 19860103

AB The mesogloea collagen of a primitive animal, the **jellyfish Stomolophus nomurai**, belonging to the class Scyphozoa in the Coelenterata, was studied with respect to its chain

structure. Most of the mesogloea **collagen** was solubilized by limited digestion with pepsin and isolated by selective precipitation at 0.9 M NaCl in 0.5 M acetic acid. Upon denaturation, the pepsin-solubilized **collagen** produced three distinct alpha chains, alpha 1, alpha 2, and alpha 3, in comparable amounts which were separable by CM-cellulose chromatography. The nonidentity of these alpha chains was confirmed by amino acid and carbohydrate analyses and peptide mapping. Furthermore, the introduction of intramolecular cross-links into native molecules by formaldehyde yielded a large proportion of gamma 123 chain with chain structure alpha 1 alpha 2 alpha 3, as judged by chromatographic behavior and peptide maps. We concluded that mesogloea **collagen** is comprised of alpha 1 alpha 2 alpha 3 heterotrimers and is chemically like vertebrate Type V **collagen**. On the other hand, sea anemone mesogloea **collagen** from the class Anthozoa was previously reported to comprise (alpha)3 homotrimers (Katzman, R. L., and Kang, A. H. (1972) J. Biol. Chemical 247, 5486-5489). On the basis of these findings, we assume that alpha 1 alpha 2 alpha 3 heterotrimers arose in evolution with the divergence of Scyphozoa and Anthozoa.

CT Check Tags: Animal; Support, Non-U.S. Gov't

Amino Acids: AN, analysis

Carbohydrates: AN, analysis

Chromatography, Ion Exchange

*Cnidaria: AN, analysis

***Collagen: AN, analysis**

Cyanogen Bromide: PD, pharmacology

Electrophoresis, Polyacrylamide Gel

Macromolecular Systems

Pepsin A: ME, metabolism

Peptide Fragments: AN, analysis

*Scyphozoa: AN, analysis

RN 506-68-3 (Cyanogen Bromide); 9007-34-5 (**Collagen**)

CN 0 (Amino Acids); 0 (Carbohydrates); 0 (Macromolecular Systems); 0 (Peptide Fragments); EC 3.4.23.1 (Pepsin A)

L32 ANSWER 38 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 15

ACCESSION NUMBER: 1984:241915 BIOSIS

DOCUMENT NUMBER: PREV198477074899; BA77:74899

TITLE: **COLLAGEN AS THE MAJOR EDIBLE COMPONENT OF
JELLYFISH STOMOLOPHUS-NOMURAI.**

AUTHOR(S): KIMURA S [Reprint author]; MIURA S; PARK Y-H

CORPORATE SOURCE: FOOD SCIENCE AND TECHNOL, TOKYO UNIV FISHERIES, KONAN 4,
MINATAO-KU, TOKYO 108, JAPAN

SOURCE: Journal of Food Science, (1983) Vol. 48, No. 6, pp.
1758-1760.

CODEN: JFDSAZ. ISSN: 0022-1147.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB The mesogloea and skin of a common edible **jellyfish**, *S. nomurai*, were characterized with respect to amino acid composition and compared with a commercially salted **jellyfish**. Then the mesogloea was digested with pepsin at 3° C for 48 h, and its solubilized protein was isolated and subjected to biochemical analyses. These composite results showed that the major edible component of **jellyfish** was the connective tissue protein, **collagen**, characterized by its high content of hydroxylysine and its glycosides.

CC Ecology: environmental biology - Water research and fishery biology
07517
Comparative biochemistry 10010
Biochemistry methods - General 10050
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Biochemistry studies - Minerals 10069
External effects - Temperature as a primary variable 10614
External effects - Temperature as a primary variable - cold 10616
Enzymes - Methods 10804
Food technology - Fish and other marine and freshwater products 13522
Food technology - Evaluations of physical and chemical properties 13530
Food technology - Preparation, processing and storage 13532
Bones, joints, fasciae, connective and adipose tissue - Physiology and
biochemistry 18004
Integumentary system - Physiology and biochemistry 18504
Temperature - General measurement and methods 23001
Invertebrata: comparative, experimental morphology, physiology and
pathology - Cnidaria 64008
Invertebrate body regions - Orifices, pores and cavities 64216
IT Major Concepts
Biochemistry and Molecular Biophysics; Foods; Physiology
IT Miscellaneous Descriptors
MESOGLEA SKIN PROTEIN AMINO-ACID
ORGN Classifier
Cnidaria 41000
Super Taxa
Invertebrata; Animalia
Taxa Notes
Animals, Invertebrates

L32 ANSWER 39 OF 41 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 16

ACCESSION NUMBER: 1975:99184 BIOSIS
DOCUMENT NUMBER: PREV197511099184; BR11:99184
TITLE: THERMAL TRANSITIONS IN COLLAGEN AND THE PREFERRED
TEMPERATURE RANGE OF ANIMALS.
AUTHOR(S): RIGBY B J; ROBINSON M S
SOURCE: Nature (London), (1975) Vol. 253, No. 5489, pp. 277-279.
CODEN: NATUAS. ISSN: 0028-0836.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

CC Mathematical biology and statistical methods 04500
Behavioral biology - Animal behavior 07003
Ecology: environmental biology - Water research and fishery biology
07517
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Molecular properties and macromolecules 10506
External effects - Temperature as a primary variable 10614
External effects - Temperature as a primary variable - cold 10616
Movement 12100
Metabolism - Proteins, peptides and amino acids 13012
Bones, joints, fasciae, connective and adipose tissue - General and
methods 18001
Bones, joints, fasciae, connective and adipose tissue - Physiology and

biochemistry 18004
 Temperature - General measurement and methods 23001
 Temperature - Hypothermia and hyperthermia 23006
 Invertebrata: comparative, experimental morphology, physiology and pathology - General 64001
 Invertebrata: comparative, experimental morphology, physiology and pathology - Cnidaria 64008
 Invertebrata: comparative, experimental morphology, physiology and pathology - Annelida 64030
 IT Major Concepts
 Behavior; Biochemistry and Molecular Biophysics; Metabolism; Methods and Techniques; Physiology; Skeletal System (Movement and Support)
 IT Miscellaneous Descriptors
 NOTE EARTHWORM ALLOLOBOPHORA-CALIGINOSA EISENIA-FOETIDA
 AURELIA-COERULEA **JELLYFISH** COOLING RELAXATION TEMPERATURE CURVE
 ORGN Classifier
 Cnidaria 41000
 Super Taxa
 Invertebrata; Animalia
 Taxa Notes
 Animals, Invertebrates
 ORGN Classifier
 Oligochaeta 65400
 Super Taxa
 Annelida; Invertebrata; Animalia
 Taxa Notes
 Animals, Annelids, Invertebrates

 L32 ANSWER 40 OF 41 MEDLINE on STN DUPLICATE 17
 ACCESSION NUMBER: 73154900 MEDLINE
 DOCUMENT NUMBER: 73154900 PubMed ID: 4144516
 TITLE: Thermal properties of the collagen of jellyfish (Aurelia coerulea) and their relation to its thermal behaviour.
 AUTHOR: Rigby R J; Hafey M
 SOURCE: AUSTRALIAN JOURNAL OF BIOLOGICAL SCIENCES, (1972 Dec) 25 (6) 1361-3.
 Journal code: 0370613. ISSN: 0004-9417.
 PUB. COUNTRY: Australia
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 197306
 ENTRY DATE: Entered STN: 19900310
 Last Updated on STN: 19950206
 Entered Medline: 19730608
 CT Check Tags: Animal
 Amino Acids: AN, analysis
 Cnidaria: AN, analysis
 *Cnidaria: PH, physiology
 Collagen: AN, analysis
 *Collagen: PH, physiology
 Movement
 *Temperature
 RN 9007-34-5 (Collagen)
 CN 0 (Amino Acids)

L32. ANSWER 41 OF 41 OCEAN COPYRIGHT 2004 CSA on STN
ACCESSION NUMBER: 70:3103 OCEAN
DOCUMENT NUMBER: 70-07743
TITLE: THE AMINO ACID CONTENT OF SEA NETTLE (CHRYSAORA
 QUINQUECIRRHA) NEMATOCYSTS.
AUTHOR: GOLDNER, RONALD
CORPORATE SOURCE: UNKNOWN
SOURCE: COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY, 33(3) :707-710,
 APRIL 1, 1970., (1970) .
FILE SEGMENT: DCOA
LANGUAGE: English